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ROBINSON, MCFADDEN & MOORE, P.C.

COLUMBIA, SOUTH CAROLINA

January 8, 2008

VIA ELECTRONIC FILING
HAND DELIVERED ORIGINALS

Mr. Charles Terreni, Chief Clerk of the Commission
Public Service Commission of South Carolina
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**Re: Application of Duke Energy Carolinas, LLC
for approval of Energy Efficiency Plan
Docket No. 2007-358-E**

Dear Mr. Terreni:

Enclosed for filing please find the following:

1. Duke Energy Carolinas' Responses to Southern Environmental Law Center's Interrogatories and Request for Production and Motion for Confidential Treatment of Selected Responses; and
2. Duke Energy Carolinas' Responses to Wal-Mart Stores East, LP's Data Requests and Motion for Confidential Treatment of Selected Responses.

We are electronically filing the "Public" versions in which confidential, proprietary information has been redacted. We are also hand delivering the "Public" versions. We are also filing under seal the "Confidential" versions which contain the information redacted in the "Public" versions.

Duke Energy Carolinas has provided copies of confidential responses to Southern Environmental Law Center, the Office of Regulatory Staff, S.C. Energy Users Committee, and Wal-Mart pursuant to separate Confidentiality Agreements. An original and two copies of each are included for filing. Please date-stamp the extra copies as proof of filing and return them with our courier.

This document is an exact duplicate, with the exception of the form of the signature, of the e-filed copy submitted to the Commission in accordance with its electronic filing instructions.

If you have any questions, please have someone on your staff contact me.

Yours truly,

ROBINSON, MCFADDEN & MOORE, P.C.


Frank R. Ellerbe, III

FRE/tch
Enclosures

c/enc: Catherine E. Heigel, Assistant General Counsel (via email and US Mail)
Nanette Edwards, Chief Counsel (via email and US Mail w/confidential
enclosures)
Scott Elliott, Esquire (via email and US Mail w/confidential enclosures)
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James H. Jeffries, IV Esquire (via email and US Mail w/o confidential
enclosures)

STATE OF SOUTH CAROLINA

Application of

Duke Energy Carolinas, LLC
for Approval of Energy Efficiency Plan Including
an Energy Efficiency Rider and Portfolio of Energy
Efficiency Programs.

**BEFORE THE
PUBLIC SERVICE COMMISSION
OF SOUTH CAROLINA**

COVER SHEET

**DOCKET
NUMBER: 2007-358-E**

(Please type or print)

Submitted by: Bonnie D. Shealy

SC Bar Number: 11125

Address: Robinson, McFadden & Moore, P.C.
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NOTE: The cover sheet and information contained herein neither replaces nor supplements the filing and service of pleadings or other papers as required by law. This form is required for use by the Public Service Commission of South Carolina for the purpose of docketing and must be filled out completely.

DOCKETING INFORMATION (Check all that apply)

☐ Emergency Relief demanded in petition ☐ Request for item to be placed on Commission's Agenda expeditiously

☒ Other: _____

INDUSTRY (Check one)	NATURE OF ACTION (Check all that apply)			
<input checked="" type="checkbox"/> Electric	<input type="checkbox"/> Affidavit	<input type="checkbox"/> Letter	<input type="checkbox"/> Request	
<input type="checkbox"/> Electric/Gas	<input type="checkbox"/> Agreement	<input type="checkbox"/> Memorandum	<input type="checkbox"/> Request for Certificatio	
<input type="checkbox"/> Electric/Telecommunications	<input type="checkbox"/> Answer	<input checked="" type="checkbox"/> Motion	<input type="checkbox"/> Request for Investigation	
<input type="checkbox"/> Electric/Water	<input type="checkbox"/> Appellate Review	<input type="checkbox"/> Objection	<input type="checkbox"/> Resale Agreement	
<input type="checkbox"/> Electric/Water/Telecom.	<input type="checkbox"/> Application	<input type="checkbox"/> Petition	<input type="checkbox"/> Resale Amendment	
<input type="checkbox"/> Electric/Water/Sewer	<input type="checkbox"/> Brief	<input type="checkbox"/> Petition for Reconsideration	<input type="checkbox"/> Reservation Letter	
<input type="checkbox"/> Gas	<input type="checkbox"/> Certificate	<input type="checkbox"/> Petition for Rulemaking	<input type="checkbox"/> Response	
<input type="checkbox"/> Railroad	<input type="checkbox"/> Comments	<input type="checkbox"/> Petition for Rule to Show Cause	<input checked="" type="checkbox"/> Response to Discovery	
<input type="checkbox"/> Sewer	<input type="checkbox"/> Complaint	<input type="checkbox"/> Petition to Intervene	<input type="checkbox"/> Return to Petition	
<input type="checkbox"/> Telecommunications	<input type="checkbox"/> Consent Order	<input type="checkbox"/> Petition to Intervene Out of Time	<input type="checkbox"/> Stipulation	
<input type="checkbox"/> Transportation	<input type="checkbox"/> Discovery	<input type="checkbox"/> Prefiled Testimony	<input type="checkbox"/> Subpoena	
<input type="checkbox"/> Water	<input type="checkbox"/> Exhibit	<input type="checkbox"/> Promotion	<input type="checkbox"/> Tariff	
<input type="checkbox"/> Water/Sewer	<input type="checkbox"/> Expedited Consideration	<input type="checkbox"/> Proposed Order	<input type="checkbox"/> Other: Testimony of Stephen M. Farmer	
<input type="checkbox"/> Administrative Matter	<input type="checkbox"/> Interconnection Agreement	<input type="checkbox"/> Protest		
<input type="checkbox"/> Other:	<input type="checkbox"/> Interconnection Amendment	<input type="checkbox"/> Publisher's Affidavit		
	<input type="checkbox"/> Late-Filed Exhibit	<input type="checkbox"/> Report		

BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA
DOCKET NO. 2007-358-E

January 8, 2008

In re:

Application of Duke Energy Carolinas, LLC
For Approval of Energy Efficiency Plan
Including an Energy Efficiency Rider and
Portfolio of Energy Efficiency Programs

)
) **DUKE ENERGY CAROLINAS'**
) **RESPONSES TO SOUTHERN**
) **ENVIRONMENTAL LAW CENTER**
) **INTERROGATORIES AND**
) **REQUESTS FOR PRODUCTION**
) **AND MOTION FOR**
) **CONFIDENTIAL TREATMENT**
) **OF SELECTED RESPONSES**

PUBLIC VERSION
CONFIDENTIAL, PROPRIETARY INFORMATION
REDACTED

Duke Energy Carolinas, LLC ("Duke Energy Carolinas" or the "Company"), by and through the undersigned counsel, hereby submits its responses to the interrogatories and requests for production of data of Southern Environmental Law Center, Southern Alliance for Clean Energy, and Coastal Conservation League (collectively referred to herein as "SELC") filed with the Public Service Commission of South Carolina (the "Commission") on December 19, 2007. The Company respectfully requests that the responses it identifies as confidential herein and all response schedules provided on compact discs included herewith be filed with the Commission under seal and maintained as confidential pursuant to Order No.: 2005-226, "ORDER REQUIRING DESIGNATION OF CONFIDENTIAL MATERIALS." The data responses designated herein as "Confidential" contain information that is proprietary and commercially

DOCKET NO. 2007-358-E
SELC Interrogatories – Set No. 1
Duke Energy Carolinas' Responses

arms-length purchased power and energy services transactions.

The Company requests, therefore, that the Commission grant its request for confidential treatment pursuant to 26 S.C. Code Ann. Regs. 103-804(Y)(2)(Cum. Supp. 2005). Duke Energy Carolinas has provided copies of all confidential responses to SELC pursuant to that certain Confidentiality Agreement by and between the Company and SELC, dated December 19, 2007. The Company has further provided copies of its confidential responses to the Office of Regulatory Staff, the South Carolina Energy Users Committee, and Wal-Mart Stores East, L.P. pursuant to separate Confidentiality Agreements entered into by and between Duke Energy Carolinas and these parties individually.

The Company responds as follows:

REDACTED

1. Response contains confidential information which is separately filed under seal and maintained as confidential pursuant to Order No. 2005-226 and the Confidentiality Agreements between the parties.

DOCKET NO. 2007-358-E
SELC Interrogatories – Set No. 1
Duke Energy Carolinas' Responses

Question Assigned to: Raiford L. Smith, Director, Energy Efficiency Product Development

2. On page 8, lines 10-12 of his testimony, Mr. Jacobs states that "Actual program costs for the reporting period will be included for information purposes as a footnote in the Reports."
- a. Please define "actual program costs."
 - b. Will breakouts of the costs for "program design, development of training materials, development of communication and advertising materials...one time incentives paid upfront for the installation of energy efficiency measures or equipment ...program administration costs and credits to customers who participate in demand response programs" be included? (Category names are from page 4, lines 24-25 and page 5, lines 1-6.)
 - c. Will breakouts of the program costs and avoided costs for load management versus energy efficiency be included?
 - d. Will any additional breakouts be included? If so, please state the additional detail on top of the total program costs for the year that you plan to provide in this footnote.

RESPONSE:

- (a) "Actual program costs" include all expenses associated with a program, including but not limited to incentives, marketing and promotional expenses, capital costs, other overhead expenses, measurement and verification costs, and other administrative expenses.
- (b) No.
- (c) No.
- (d) No.

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Duke Energy Carolinas' Responses

REDACTED

3. (a) (b) and (c) Responses contain confidential information which is separately filed under seal and maintained as confidential pursuant to Order No. 2005-226 and the Confidentiality Agreements between the parties.

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SELC Interrogatories – Set No. 1
Duke Energy Carolinas' Responses

Question Assigned to: Jane L. Mc Maneus, Director, Rate Design & Analysis

3. Mr. Farmer states on page 8, lines 21-22 of his testimony that avoided capacity costs for 2008 are based on the most recent approved qualifying facility ("QF") filing. Please:
- d. Explain how the avoided capacity and energy costs will be obtained for the 2009 vintage year (Farmer testimony, page 9 line 3).
 - e. Explain the basis and rationale for the 4% escalation factor (Farmer testimony, page 10, line 7).

RESPONSE:

- (d) The avoided capacity and energy costs for the 2009 vintage year will be obtained in the manner discussed on page 7, beginning on line 6 continuing through page 8, line 2 of Mr. Farmer's testimony. Mr. Farmer includes a reference to the testimony of Dr. Stevie (Stevie testimony, page 15, lines 3-11) wherein Dr. Stevie describes the methodology for calculating avoided energy costs which the Company plans to use in future filings. In addition, see pages 2 and 3 of Farmer Exhibit 1 for an explanation of the sources of the avoided capacity and energy costs. In short, the avoided capacity costs will be those used to calculate the most recently filed or approved qualifying facility ("QF") rates. If the currently approved QF rates have not been modified prior to the preparation of the 2009 vintage year proposed Rider, then the avoided capacity costs will be the same as those used for the 2008 vintage year, adjusted by an inflation factor. The avoided energy costs will be derived from IRP model analyses with and without the portfolio of energy efficiency programs.
- (e) The 4% escalation rate used in the computation of avoided capacity cost is intended to represent the increase in the cost of new capacity resulting from expected increases in labor, materials, commodities and engineered products associated with construction of new capacity. The estimated escalation rate reflects an average of the price escalation Duke Energy Carolinas has experienced based on vendor estimates provided to the Company. This rate is used in the avoided cost calculation to escalate the annual carrying costs of avoided capacity investment (depreciation, property tax and a pretax return on investment), which have been computed using a real discount rate rather than a nominal discount rate.

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Duke Energy Carolinas' Responses

Question Assigned to: Richard G. Stevie, PhD., Managing Director, Customer Market Analytics, and Christopher M. Jacobi, Commercial Associate, Market & Financial Analysis

4. Mr. Farmer's Exhibit No. 2 proposes a residential revenue requirement of \$7,919,560 and a nonresidential revenue requirement of \$15,829,264. Please:

a. Identify the amount of this revenue requirement that corresponds to amortizing program costs, the amount that corresponds to amortizing estimated net revenue impacts, and the amount that corresponds to amortizing an incentive to the utility.

RESPONSE:

(a) Zero.

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Duke Energy Carolinas' Responses

REDACTED

4. (b) and (c) Responses contain confidential information which is separately filed under seal and maintained as confidential pursuant to Order No. 2005-226 and the Confidentiality Agreements between the parties.

REDACTED

5. Response contains confidential information which is separately filed under seal and maintained as confidential pursuant to Order No. 2005-226 and the Confidentiality Agreements between the parties.

DOCKET NO. 2007-358-E
SELC Interrogatories – Set No. 1
Duke Energy Carolinas' Responses

REDACTED

6. Response contains confidential information which is separately filed under seal and maintained as confidential pursuant to Order No. 2005-226 and the Confidentiality Agreements between the parties.

DOCKET NO. 2007-358-E
SELC Interrogatories – Set No. 1
Duke Energy Carolinas' Responses

Question Assigned to: Janice D. Hager, Managing Director, Integrated Resource Planning

7. On page 10, line 13, Ms. Hager refers to existing programs which provide some 700 MW of load impact. Are all of these programs demand response programs? If any are "conservation" programs (defined here as programs that reduce energy consumption) for what amount of load impact do these account?

RESPONSE:

The 700 MWs of existing programs are demand response programs.

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Duke Energy Carolinas' Responses

Question Assigned to: Theodore E. Schultz, Vice President, Energy Efficiency, Raiford L. Smith, Director, Energy Efficiency Product Development, and Diane V. Denton, Director, Energy Efficiency Policy

8. Beginning on page 19, line 14, of his testimony, Mr. Schultz discusses the Company's desire for flexibility in running new energy efficiency programs. Please identify which of the following elements, if any, the Company believes to be included in the requested degree of flexibility:

- a. Reducing or increasing overall portfolio funding levels within years.
- b. Increasing or decreasing the program cost budget for a program, within or between years.
- c. Adding or subtracting specific program measures, within or between years.
- d. Modifying program participation incentives offered, within or between years.
- e. Modifying customer eligibility for programs, within or between years.

RESPONSE:

(a) Yes.

(b) Yes.

(c), (d), and (e) Duke Energy Carolinas will file tariffs and will comply with those tariffs. It is expected that certain flexibilities will be stated in the tariff. To the extent the tariffs as approved provide this flexibility, the answer is yes; to the extent it does not, the answer is no.

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Duke Energy Carolinas' Responses

Question Assigned to: Carol E. Shrum, Vice President, Rates, and Barbara G. Yarbrough, Manager, Rates

9. On pages 4 and 5 of his pre-filed testimony, Mr. Schultz described the company's existing demand-side programs. Please:

- a. Identify the annual supply cost savings the Company realized from each of Riders IS, SG, and LC, for 2006 or (if available) 2007.
- b. Identify all costs the Company incurred to operate each of Riders IS, SG, and LC, on an annual basis for 2006 or (if available) 2007.
- c. Provide the most recent available Company testimony which explains and quantifies the costs and benefits of Riders IS, SG, and LC.
- d. Provide the most recent available Company testimony which explains and quantifies the costs and benefits of the programs listed on page 5, lines 1 through 8, of Mr. Schultz's testimony.

RESPONSE:

- (a) The annual supply cost savings realized from each of Riders IS, SG, and LC have not been measured.
- (c) The Company is not aware of any "testimony" concerning Riders IS and SG. Both schedules were approved without a hearing. There is some testimony on Rider LC. Because of customer concerns about reducing the credits in 1993, the Commission held a hearing in Docket No. 92-208-E on January 25, 1995. Attached as Exhibits 1 and 2 are copies of the summary of the testimony of Company witness Ed Ernest and the testimony of Barbara G. Yarbrough from that proceeding. (Duke will supplement its response with the official versions of both once the Department of Archives provides copies.)
- (d) These programs are:

Residential Energy Star
Existing Residential Housing Program
Energy Efficiency Video
Large Business Customer Energy Efficiency Assessments
Large Business customer Energy Efficiency Tools
Educational Web Resources
On-Line Home Energy Audit

Only Residential Energy Star and Existing Residential Housing Program are filed programs and the Company is not aware of any testimony on them. They were both approved without a hearing.

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SELC Interrogatories – Set No. 1
Duke Energy Carolinas' Responses

REDACTED

9. (b) Response contains confidential information which is separately filed under seal and maintained as confidential pursuant to Order No. 2005-226 and the Confidentiality Agreements between the parties.

DOCKET NO. 2007-358-E
SELC Interrogatories – Set No. 1
Duke Energy Carolinas' Responses

Question Assigned to: Raiford L. Smith, Director, Energy Efficiency Product Development and Christopher M. Jacobi, Commercial Associate, Market & Financial Analysis

10. On page 20 of his pre-filed testimony, between lines 14 and 15, Mr. Schultz presents a 4-year plan and its projected results. Please explain:

a. Whether Duke seeks permission to implement rider EE for year 1, and to continue with and modify the rider for each of the three subsequent years?

b. Whether Duke seeks authorization at this time to continue Rider EE beyond a four-year period?

RESPONSE:

(a) and (b) The Company is requesting permission only to implement the first year of its EE plans at this time. However, the revenue requirement associated with programs implemented in the first year is recovered over a multi-year period.

DOCKET NO. 2007-358-E
SELC Interrogatories – Set No. 1
Duke Energy Carolinas' Responses

REDACTED

10. (c) and (d) Responses contain confidential information which is separately filed under seal and maintained as confidential pursuant to Order No. 2005-226 and the Confidentiality Agreements between the parties.

DOCKET NO. 2007-358-E
SELC Interrogatories – Set No. 1
Duke Energy Carolinas' Responses

REDACTED

11. Response contains confidential information which is separately filed under seal and maintained as confidential pursuant to Order No. 2005-226 and the Confidentiality Agreements between the parties.

DOCKET NO. 2007-358-E
SELC Interrogatories – Set No. 1
Duke Energy Carolinas' Responses

Question Assigned to: Diane V. Denton, Director, Energy Efficiency Policy

12. On page 6, lines 6-10 Ms. Ruff states the following: "However, starting in 2009, the Company will need additional capacity over time to accommodate load growth, unit capacity adjustments, unit retirements, existing demand side management program reductions, and expirations of purchased-power contracts." Please explain what "existing demand side management program reductions" the Company expects to make.

RESPONSE:

The statement refers to the existing Riders IS, SG, and LC, as well as the Existing Residential Housing Program, which the Company is requesting approval to cancel in this docket.

As stated in the testimony of Ted Schultz (pg. 17, line 3), Duke Energy Carolina's current DSM programs are more than 20 years old and have been virtually unchanged for more than 10 years. Based on customer research and the experience developed from operating these programs, the Company believes that improvements can be made. Therefore, in connection with the implementation of the proposed portfolio of energy efficiency programs, the Company is requesting approval to cancel Riders IS, SG and LC, as well as the existing Residential Housing Program (Testimony of Ted Schultz, pg. 19, line 1).

These old programs that will be cancelled represent about 700 MW of demand response. It is anticipated that the new, improved programs will produce more than 1700 MW of demand savings within 4 years.

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SELC Interrogatories – Set No. 1
Duke Energy Carolinas' Responses

REDACTED

13. Response contains confidential information which is separately filed under seal and maintained as confidential pursuant to Order No. 2005-226 and the Confidentiality Agreements between the parties.

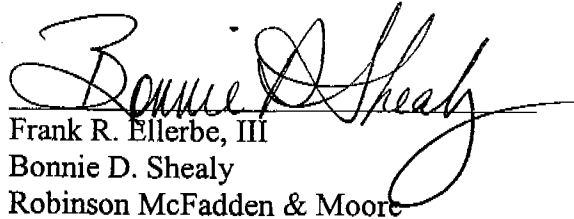
DOCKET NO. 2007-358-E
SELC Interrogatories – Set No. 1
Duke Energy Carolinas' Responses

REDACTED

14. Response contains confidential information which is separately filed under seal and maintained as confidential pursuant to Order No. 2005-226 and the Confidentiality Agreements between the parties.

DOCKET NO. 2007-358-E
SELC Interrogatories – Set No. 1
Duke Energy Carolinas' Responses

Respectfully submitted this 8th day of January 2008.



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**ATTORNEYS FOR DUKE ENERGY
CAROLINAS, LLC**

**BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA
DOCKET NO. 2007-358-E**

January 8, 2008

In re:)	
Application of Duke Energy Carolinas, LLC	)	DUKE ENERGY CAROLINAS'
For Approval of Energy Efficiency Plan	)	RESPONSES TO WAL-MART
Including an Energy Efficiency Rider and	)	STORES EAST, LP DATA
Portfolio of Energy Efficiency Programs	)	REQUESTS AND MOTION FOR
	)	CONFIDENTIAL TREATMENT
	)	OF SELECTED RESPONSES
)	

EXHIBIT 1

**TESTIMONY OF H. ED ERNST, JR.
FOR DUKE POWER CO.
DOCKET NO. 92-208-E**

1
2
3
4
**SUMMARY OF TESTIMONY
OF
H. ED ERNST, JR.
FOR DUKE POWER COMPANY**

5
6
**Docket No. 92-208-E
Before The Public Service Commission of South Carolina**

7 The purpose of my testimony is to demonstrate that Duke's proposed changes in its Air
8 Conditioning Load Control Program are consistent with Duke's focused efforts to provide the
9 lowest cost of service to its customers. I will also describe Duke's Integrated Resource Planning
10 (IRP) process and demonstrate how Duke's IRP process results in a cost-effective mix of
11 resources to meet customers' electricity needs. I will also describe Duke's Air Conditioning
12 Load Control Program (A/C Load Control) and how the Air Conditioning Load Control Program
13 was analyzed in Duke's IRP process. Finally, I will explain how the IRP analysis showed that
14 the Air Conditioning Load Control Program would be too costly to continue at the current credit
15 level. The need to modify the Air Conditioning Load Control credits to benefit all customers is
16 a result of Duke's IRP process. Therefore, Duke respectfully requests that the Commission
17 allow Duke to modify the credits in order to be consistent with integrated resource planning
18 requirements.

19 If we continue to pay the current level of credits, the program will ultimately result in
20 higher rates for all of Duke's customers. Remember that the purpose of interruptible programs
21 is to act as a substitute for peaking generation. The A/C Load Control program is designed such
22 that bill credits plus the cost to administrate the program are lower in cost than building a new
23 combustion turbine unit. To be cost-effective, A/C load control credits must also decrease, since

1 the cost of combustion turbines is decreasing. A number of participating customers have
2 complained about Duke's proposal to lower the A/C credits. Understandably, their motivation
3 is their personal power bill. Duke has virtually not utilized this program over the years. Duke
4 must look at customers as a whole and make decisions based on what is best for all customers.
5 To the extent that the credit is too high, the rest of Duke's customers are paying this price. Duke
6 will not receive any benefit by lowering the credit; conversely, Duke's customers will pay if
7 participating customers' credits are too high. Lowering A/C load control credits is in the best
8 interest of all customers, even though it will lower the credit received by many participating
9 customers. At the reduced level of credits, all customer (participants and non-participants) will
10 eventually pay less per kwh of electricity than they would without the program.

11 Briefly, Integrated Resource Planning is the process of integrating demand-side
12 management (DSM), supply-side, and purchased power resource options to provide the best
13 resource plan to meet the company's electric demand and energy requirements with consideration
14 of uncertainties which may impact these requirements. Following the annual development of
15 long range forecast of customer needs for electricity, the integration process begins with a base
16 supply-side plan which is the lowest total cost mix of supply-side resources which meets the
17 projected energy and capacity needs including a 20% minimum planning reserve margin. Once
18 a base supply-side plan has been established, demand-side options are examined which may alter
19 this base plan. Demand-side options are identified through customer research to identify
20 customer needs. Duke utilizes four types of demand-side options: energy efficiency,
21 interruptible, load shift and strategic sales.

22 Each demand-side option is then analyzed using the Commission-approved economic

1 analysis tests. For each option, a benefit/cost ratio is determined by examining benefits and costs
2 of the program over the program life.

3 Demand-side programs benefit Duke and its customers. These programs benefit customers
4 by either providing participating customers with ways to lower their electric bills or helping
5 customers meet energy needs with efficient electric technologies.

6 The Residential Air Conditioning Load Program is an interruptible demand-side option
7 that offers residential customers a monthly bill credit for the four summer billing months of July
8 through October. In exchange for the credit, participants allow Duke Power to interrupt service
9 to their central air conditioning (cooling) systems any time the company has capacity problems.
10 The program allows Duke to reduce peak demand during capacity problem situations and reduce
11 the need for future generation. To this point, Duke has utilized the program for capacity
12 problems on only a limited number of cases. The program is designed such that the bill credits
13 plus the cost to administer the program are lower in cost than building a new combustion turbine
14 unit. By offering this program, Duke defers the need for new supply-side resources.

15 Currently, customers participating in the Residential Air Conditioning Load Control
16 Program receive a monthly bill credit of \$3.25 per KW of full load nameplate compressor
17 capacity for the four summer billing months of July through October. The average credit is
18 \$15.80 per month for the four summer billing months. Based on 1992 Program Evaluation results,
19 Duke determined that the Residential Air conditioning Load Control Program requires
20 modification. The cost of the program (bill credits, program administration, equipment costs,
21 etc.) outweighs the long-term benefits of avoided capacity and energy this program provides.
22 The primary factor affecting program cost effectiveness is the level of credit paid compared to

1 the benefit received. As a result, Duke redesigned the Residential Load Control Program and
2 developed a credit structure that was comparable to the benefit received.

3 As a result of Duke's program redesign, the credit structure was revised to pay a flat
4 credit of \$8 per month per home for the four billing months of July, August, September, and
5 October. Duke proposed to implement the revised credit effective January 1, 1995 for all current
6 program participants and June 1, 1994 for all new customer additions. The credit was based on
7 the current program costs and the resulting production cost and deferred capacity costs savings
8 as a result of the program. Also, Duke compared the current level of credit paid by other utilities
9 for similar programs and conducted research with residential customers to test various cost-
10 effective credit levels and formats.

11 The current credit levels were established in 1981. Since that time several things have
12 happened which are now resulting in a need to lower the credit.

- 13 1) More efficient equipment being installed today means that the average air-
14 conditioning unit provides a lower kilowatt demand reduction and, therefore, less
15 benefit to Duke than in 1981.
- 16 2) The Company has developed a better understanding of the actual benefits that load
17 control provides in terms of reduced need for peaking capacity.
- 18 3) Costs for generating capacity, such as combustion turbines, are decreasing.

19 Duke believes that if it is not allowed to make the Air Conditioning Load Control
20 Program cost-effective by modifying the credits, the purpose of the IRP process will be
21 undermined. The objective of integrated resource planning as set forth by this Commission is
22 "the development of a plan that results in the minimization of the long run total costs of the

1 utility's overall system and produces the least cost to the consumer" The process involves
2 use of demand-side management programs to minimize system costs and costs to customers as
3 a whole. The process also involves continuous examination of Duke's DSM programs to ensure
4 the programs remain cost-effective. The request to change the A/C load control credits is a
5 classic example of the IRP process at work. Duke offers A/C load control as part of its IRP
6 process. The DSM program evaluation of the program indicated a need to modify the program
7 to ensure future cost-effectiveness. If Duke is not allowed to modify DSM programs to make
8 them cost-effective, the question must be asked why expend thousands of dollars to evaluate the
9 programs.

10 Duke is requesting that the Commission approve the changes in A/C Load Control
11 Program as filed in Duke's March 9, 1994 filing in Docket Nos. 92-208-E and 79-166-E which
12 requested approval of the changes to the Air Conditioning Load Control credit, and revise the
13 credit level for all customers to \$8 per month effective with the summer 1995 billings.

**BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA
DOCKET NO. 2007-358-E**

January 8, 2008

In re:)	
Application of Duke Energy Carolinas, LLC	)	DUKE ENERGY CAROLINAS'
For Approval of Energy Efficiency Plan	)	RESPONSES TO WAL-MART
Including an Energy Efficiency Rider and	)	STORES EAST, LP DATA
Portfolio of Energy Efficiency Programs	)	REQUESTS AND MOTION FOR
	)	CONFIDENTIAL TREATMENT
	)	OF SELECTED RESPONSES
)	

**EXHIBIT 2
TESTIMONY OF BARBARA G. YARBROUGH
FOR DUKE POWER CO.
DOCKET NO. 92-208-E**

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TESTIMONY OF
BARBARA G. YARBROUGH
FOR
DUKE POWER COMPANY
SCPSC DOCKET NO. 92-208-E

6 Q. PLEASE STATE YOUR NAME, ADDRESS AND POSITION WITH DUKE POWER
7 COMPANY.

8 A. My name is Barbara G. Yarbrough and my business address is 526 S.
9 Church Street, Charlotte, North Carolina. I am Manager, Rate
10 Administration for Duke Power Company.

11 Q. PLEASE DESCRIBE YOUR RESPONSIBILITIES IN THIS POSITION.

12 A. I am responsible for directing the proper administration of Duke's
13 rate schedules and service regulations, and the Public Service
14 Commission's rules and regulations. Additionally, I am
15 responsible for the investigation of customer complaints received
16 through the Commission.

17 Q. HOW LONG HAVE YOU PERFORMED THESE DUTIES?

18 A. I have worked in Rate Administration for the last 15 years, the
19 last four and a half years as Manager.

20 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

21 A. The purpose of my testimony is to describe the provisions of
22 Duke's air conditioning load control program.

23 Q. PLEASE DESCRIBE WHEN AND HOW DUKE IMPLEMENTED ITS LOAD CONTROL
24 PROGRAM.

25 A. In May 1979, Duke filed a proposal to add load control provisions
26 to its standard residential rate schedules. These provisions
27 allowed customers the option of having their electric water
28 heaters and/or air conditioners interrupted at times when the
29 Company experienced capacity problems. In exchange Duke would

1 give billing credits to customers. Participating customers
2 received \$2.00 per month per kilowatt of air conditioning each
3 month for the four summer billing months of July - October. In
4 order to establish the KW demand used to calculate the credit,
5 Duke uses the compressor capacity listed on the air conditioner's
6 nameplate. Credits were limited to 20% of the total bill
7 exclusive of such credits. The Commission approved the load
8 control provisions on Duke's residential rate schedules R, RW, RA
9 and RC effective June 5, 1979. In 1981, the load control
10 provisions were removed from the individual schedules and
11 established as a separate Rider LC.

12 Q. HOW DID DUKE OPERATE LOAD CONTROL TO INTERRUPT SERVICE TO THE AIR
13 CONDITIONING?

14 A. Duke installed power line carrier equipment in substations which
15 would send a signal across the power line to a load control device
16 installed on the customer's water heater or air conditioner. The
17 signal would cause an interruption of service to the controlled
18 equipment. When the capacity problem was over, another signal
19 would restore service to the controlled equipment. Currently Duke
20 uses a combination of the power line carrier system and a radio
21 control system.

22 Q. WHAT DID THE CUSTOMER HAVE TO DO TO PARTICIPATE IN THE LOAD
23 CONTROL PROGRAM?

24 A. In order to control equipment, an electrician had to install
25 wiring and a meter enclosure in the customer's air conditioner
26 circuit to house a load control device. Customers had the option
27

1 of having this wiring performed themselves or having Duke contract
2 with an electrician to do the work for an installation fee stated
3 in the rate.

4 Q. WERE CHANGES SUBSEQUENTLY MADE TO THE PROGRAM?

5 A. Yes. During the first year of the program Duke gained experience
6 with load control and recognized a need to make significant
7 changes to the program. In 1981, Duke proposed changes in the
8 amount of the credits and the installation fee. The Commission
9 approved the changes effective November 5, 1981. Duke's
10 experience during the first few years of the program showed that
11 the installation fee needed to be restructured and increased. As
12 a result the fee was increased to \$35 for installation of the
13 wiring for control of either water heating or air conditioning and
14 increased to \$50 for the installation of wiring for customers who
15 had water heating and air conditioning load control, provided the
16 installation could be done at the same time. Based on the
17 estimated value of the program to Duke at that time, the air
18 conditioning credit was increased to \$3.25 per kilowatt. In
19 addition, the limitation on the maximum credit was raised to 35%
20 of the customer's bill.

21 Q. IS THERE A CONTRACT PERIOD FOR LOAD CONTROL SERVICE?

22 A. Duke offers customers a contract for a period of two years, but
23 the customer can discontinue the service after the first year
24 without penalty. A copy of the current contract is attached as
25 Exhibit 1. Previous contracts had similar contract terms. Duke
26 chose the two years to help ensure that contracting customers

1 receive enough credits in the two years to more than offset their
2 investment for the installation of the load control device(s).

3 Q. DOES DUKE'S CONTRACT WITH LOAD CONTROL CUSTOMERS ALLOW CHANGES IN
4 THE CREDITS FOR AIR CONDITIONING LOAD CONTROL?

5 A. Yes. First, the contract's term is for two years. Within the
6 terms of the contract the customer may terminate after the first
7 year has passed, or Duke may terminate the agreement after two
8 years. Second, each contract states that the provisions of the
9 load control program may be modified from time to time. This
10 language allows modification, upon Commission approval, of any
11 terms and conditions. Such language is fairly standard in
12 contracts for utility service recognizing that changes in rates,
13 terms and conditions, must keep pace with costs and other factors
14 as long as the rate is available. However, Duke has not elected
15 to request a credit charge for customers who are currently within
16 the first two years of their contract and who entered into that
17 contract prior to Commission approval to lower the credit for new
18 installations.

19 Q. DOES DUKE'S PROPOSAL INVOLVE DISCONTINUING AIR CONDITIONING LOAD
20 CONTROL SERVICE FOR EXISTING CUSTOMERS?

21 A. No. Air conditioning load control remains an important resource
22 for Duke, however, not at the level of credits Duke is currently
23 paying. Duke's plan for implementing the proposed change in
24 credits provides that all contracting customers receive a minimum
25 of two years of credits at the \$3.25 per KW level, even though a
26 large number of customers within their initial term would have

1 recouped their investment in one year or less. Secondly, it is
2 Duke's intent to continue to offer load control service at a lower
3 credit to the modified customers whose initial contract has
4 expired. The Commission has already approved Duke's proposal to
5 pay \$8.00 per month for load control to new customers applying for
6 this service after September 12, 1994.

7 Q. HOW MANY CUSTOMERS CURRENTLY PARTICIPATE IN THE AIR CONDITIONING
8 LOAD CONTROL PROGRAM?

9 A. A little over 56,000, about 15% of Duke's residential customers in
10 South Carolina.

11 Q. WHY IS DUKE PROPOSING A FLAT CREDIT?

12 A. The flat credit is easier to explain to customers, many of whom do
13 not understand the terms kilowatt and capacity. The \$8 credit is
14 clearer to a nonparticipating customer inquiring about entering
15 the program. A flat credit is also clearer to participating
16 customers who currently are confused when their credit is
17 different than their neighbors' credit. Also, the flat credit is
18 less expensive for Duke to administer. The current credit based
19 on a KW value requires a field visit to verify the size and KW of
20 the air conditioning unit. A flat credit would eliminate these
21 costs and administrative problems.

22 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

23 A. Yes.

BEFORE THE PUBLIC SERVICE COMMISSION
OF SOUTH CAROLINA
DOCKET NO. 2007-358-E

In Re:)
)
Application of Duke Energy)
Carolinas, LLC for Approval of)
Energy Efficiency Plan Including an)
Energy Efficiency Rider and)
Portfolio of Energy Efficiency)
Programs)

CERTIFICATE OF SERVICE

This is to certify that I, Leslie L. Allen, a legal assistant with the law firm of Robinson, McFadden & Moore, P.C., have this day caused to be served upon the person(s) named below the **Duke Energy Carolinas' Responses to Wal-Mart Stores East, LP's Data Requests and Motion for Confidential Treatment of Selected Responses** in the foregoing matter by placing a copy of same in the United States Mail, postage prepaid, in an envelope addressed as follows:

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Dated at Columbia, South Carolina this 8th day of January, 2008.

A handwritten signature in cursive script, reading "Leslie Allen", written in dark ink.

Leslie L. Allen